CLAIM AMENDMENTS

1.-42.   (Cancelled)

43.   (New) A method comprising:

receiving a first signal having a fundamental frequency;

providing a first component of a complex input signal to a first Gilbert cell multiplier;

providing a second component of the complex input signal to a second Gilbert cell multiplier;

using the Gilbert cell multipliers to modulate the complex input signal; and

tuning the modulation to a harmonic of the fundamental frequency to produce a modulated signal having a carrier frequency near the harmonic, the modulated signal having substantially more spectral energy near the harmonic than near the fundamental frequency, wherein the tuning comprises connecting an output terminal of the first Gilbert cell multiplier directly to a bandpass filter and connecting an output terminal of the second Gilbert cell multiplier directly to the bandpass filter.

44.   (New) The method of claim 43, wherein the output terminals of the first and second Gilbert cell multipliers comprise output terminals of the bandpass filter.

45.   (New) The method of claim 43, wherein the tuning comprises:
establishing a filtering passband for the modulation, the passband including frequencies near the harmonic.

46.   (New) The method of claim 431, wherein the tuning comprises:
filtering out spectral energy of the modulated signal near the fundamental frequency.

47.   (New) The method of claim 43, wherein the harmonic comprises an odd harmonic.

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48.   (New) A system comprising:

an oscillator to generate a first signal having a fundamental frequency; and

a modulator comprising:

a first Gilbert cell multiplier to modulate a first component of a complex input signal with the first signal, the first Gilbert cell multiplier comprising an output terminal; and

a second Gilbert cell multiplier to modulate a second component of the complex input signal with the first signal, the second Gilbert cell multiplier comprising an output terminal; and

a bandpass filter directly connected to the output terminals of the first and second Gilbert cell multipliers to tune the modulation to a harmonic of the fundamental frequency to produce a modulated signal having a carrier frequency near the harmonic, the modulated signal has substantially more spectral energy near the harmonic than near the fundamental frequency.

49.   (New) The system of claim 48, wherein the output terminals of the first and second Gilbert cell multipliers comprise output terminals of the bandpass filter.

50.   (New) The system of claim 48, wherein the filter establishes a passband for the modulation, the passband including frequencies near the harmonic.

51.   (New) The system of claim 48, wherein the filter filters out spectral energy located near the fundamental frequency.

52.   (New) The system of claim 48, wherein the harmonic comprises an odd harmonic.

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53.   (New) A system comprising:

an oscillator to generate a first signal having a fundamental frequency;

a modulator comprising:

a first Gilbert cell multiplier to modulate a first component of a complex input signal with the first signal, the first Gilbert cell multiplier comprising an output terminal; and

a second Gilbert cell multiplier to modulate a second component of the complex input signal with the first signal, the second Gilbert cell multiplier comprising an output terminal;

a bandpass filter directly connected to the output terminals of the first and second Gilbert cell multipliers to tune the modulation to a harmonic of the fundamental frequency to produce a modulated signal having a carrier frequency near the harmonic, the modulated signal has substantially more spectral energy near the harmonic than near the fundamental frequency; and

a wireless interface to wireless communicate the modulated signal.

54.   (New) The system of claim 53, wherein the output terminals of the first and second Gilbert cell multipliers comprise output terminals of the bandpass filter.

55.   (New) The system of claim 53, wherein the filter establishes a passband for the modulation, the passband including frequencies near the harmonic.

56.   (New) The system of claim 53, wherein the filter filters out spectral energy of the second signal located near the fundamental frequency.

57.   (New) The system of claim 53, wherein the harmonic comprises an odd harmonic.